

PCT09

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/787,436

DATE: 12/19/2001  
TIME: 16:01:46

Input Set : A:\ES.txt  
Output Set: N:\CRF3\12192001\I787436.raw

**ENTERED**

5 <110> APPLICANT: DELANSORNE, R,mi  
W--> 7 <110> APPLICANT: BONNET, Paule  
W--> 9 <110> APPLICANT: PARIS, Jacques  
13 <120> TITLE OF INVENTION: Pharmaceutical compositions based on alpha-cyclodextrin  
15 for the oral administration of LH-RH analogues  
19 <130> FILE REFERENCE: H20058-5US  
C--> 23 <140> CURRENT APPLICATION NUMBER: US/09/787,436  
C--> 23 <141> CURRENT FILING DATE: 2001-03-27  
23 <150> PRIOR APPLICATION NUMBER: PCT/EP99/07389  
25 <151> PRIOR FILING DATE: 1999-09-23  
29 <150> PRIOR APPLICATION NUMBER: EP98402403.4  
31 <151> PRIOR FILING DATE: 1998-09-30  
35 <160> NUMBER OF SEQ ID NOS: 7  
39 <170> SOFTWARE: PatentIn Ver. 2.1  
43 <210> SEQ ID NO: 1  
45 <211> LENGTH: 10  
47 <212> TYPE: PRT  
49 <213> ORGANISM: Artificial Sequence  
53 <220> FEATURE:  
55 <223> OTHER INFORMATION: Description of Artificial Sequence:LH-RH analogue  
59 <220> FEATURE:  
61 <221> NAME/KEY: SITE  
63 <222> LOCATION: (1)  
65 <223> OTHER INFORMATION: Xaa is pGlu, D-pGlu, Sar, AcSar, Pro, Ser, D-Ser, Ac-D-Ser,  
67 Thr, D-Thr, Ac-D-Thr or an optionally substituted and/or acylated  
69 aromatic D-amino acid  
73 <220> FEATURE:  
75 <221> NAME/KEY: SITE  
77 <222> LOCATION: (2)  
79 <223> OTHER INFORMATION: Xaa His or an optionally substituted aromatic D-amino acid  
83 <220> FEATURE:  
85 <221> NAME/KEY: SITE  
87 <222> LOCATION: (3)  
89 <223> OTHER INFORMATION: Xaa is an optionally substituted aromatic L- or D-amino acid  
93 <220> FEATURE:  
95 <221> NAME/KEY: SITE  
97 <222> LOCATION: (4)  
99 <223> OTHER INFORMATION: Xaa is Ala, Ser, D-Ser, MeSer, Ser(OMe), Ser(OBzl) or Thr.  
103 <220> FEATURE:  
105 <221> NAME/KEY: SITE  
107 <222> LOCATION: (5)  
109 <223> OTHER INFORMATION: Xaa is an optionally substituted aromatic L-amino acid  
111 or an optionally substituted basic L- or D-amino acid  
115 <220> FEATURE:  
117 <221> NAME/KEY: SITE  
119 <222> LOCATION: (6)  
121 <223> OTHER INFORMATION: Xaa is Gly, (S)-spirolactam-Pro, D-Pro, D-Ser, D-Thr,

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123 D-Cys, D-Met, D-Asn, D-Pen, D-(S-Me)Pen, D-(S-Et)Pen,  
 125 D-Ser(OBut), D-Asp(OBut), D-Glu(OBut), D-Thr(OBut),  
 127 D-Cys(OBut), D-Ser(OR1) where R1 is a sugar moiety, an  
 W--> 129 aza-amino acid, D-His which may be substituted on the  
 W--> 131 imidazole ring by a (C1-C6)alkyl, a (C2-C7)acyl or a  
 W--> 133 benzyl group, an aliphatic D-amino acid with a (C1-C8)-  
 W--> 135 alkyl or a (C3-C6)cycloalkyl side chain, an optionally  
 W--> 137 substituted aromatic D-amino acid, D-cyclohexadienyl-Gly,  
 W--> 139 D-perhydronaphthyl-Ala, D-perhydrodiphenyl-Ala or an  
 W--> 141 optionally substituted basic L- or D-amino acid  
 145 <220> FEATURE:  
 147 <221> NAME/KEY: SITE  
 149 <222> LOCATION: (7)  
 151 <223> OTHER INFORMATION: Xaa is a linear, branched or cyclic aliphatic L-amino  
 153 acid of 3 to 20 carbon atoms which may be N-alpha-  
 155 substituted by a (C1-C4)alkyl group optionally substituted  
 157 by one or several fluorine atoms  
 161 <220> FEATURE:  
 163 <221> NAME/KEY: SITE  
 165 <222> LOCATION: (8)  
 167 <223> OTHER INFORMATION: Xaa is an optionally substituted basic L- or D-amino acid  
 171 <220> FEATURE:  
 173 <221> NAME/KEY: SITE  
 175 <222> LOCATION: (10)  
 177 <223> OTHER INFORMATION: Xaa is GlyNH2, D-AlaNH2, azaGlyNH2 or a group -NHR2  
 179 where R2 is a (C1-C4)alkyl which may be substituted by  
 181 an hydroxy or one or several fluorine atoms, a (C3-  
 183 C6)cycloalkyl or a heterocyclic radical selected from  
 W--> 185 morpholinyl, pyrrolidinyl and piperidyl  
 189 <400> SEQUENCE: 1  
 W--> 191 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Pro Xaa  
 193 1 5 10  
 197 <210> SEQ ID NO: 2  
 199 <211> LENGTH: 10  
 201 <212> TYPE: PRT  
 203 <213> ORGANISM: Artificial Sequence  
 207 <220> FEATURE:  
 209 <223> OTHER INFORMATION: Description of Artificial Sequence:LH-RH analogue  
 213 <220> FEATURE:  
 215 <221> NAME/KEY: SITE  
 217 <222> LOCATION: (1)  
 219 <223> OTHER INFORMATION: Xaa is pGlu, Sar or AcSar  
 223 <220> FEATURE:  
 225 <221> NAME/KEY: SITE  
 227 <222> LOCATION: (3)  
 229 <223> OTHER INFORMATION: Xaa is an optionally substituted aromatic L-amino acid  
 233 <220> FEATURE:  
 235 <221> NAME/KEY: SITE  
 237 <222> LOCATION: (4)

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239 <223> OTHER INFORMATION: Xaa is Ala, Ser, D-Ser, MeSer, Ser(OBut), Ser(OBzl) or Thr  
 243 <220> FEATURE:  
 245 <221> NAME/KEY: SITE  
 247 <222> LOCATION: (5)  
 249 <223> OTHER INFORMATION: Xaa is an optionally substituted aromatic L-amino acid  
 253 <220> FEATURE:  
 255 <221> NAME/KEY: SITE  
 257 <222> LOCATION: (6)  
 259 <223> OTHER INFORMATION: Xaa is Gly, (S)-spirolactam-Pro, D-Pro, D-Ser, D-Thr,  
 261 D-Cys, D-Met, D-Pen, D-(S-Me)Pen, D-(S-Et)Pen,  
 263 D-Ser(OBut), D-Asp(OBut), D-Glu(OBut), D-Thr(OBut),  
 265 D-Cys(OBut), D-Ser(OR1) where R1 is a sugar moiety, an  
 W--> 267 aza-amino acid, D-His which may be substituted on the  
 W--> 269 imidazole ring by a (C1-C6)alkyl or a benzyl group, an  
 W--> 271 aliphatic D-amino acid with a (C1-C8)alkyl or a (C3-  
 W--> 273 C6)cycloalkyl side chain, an optionally substituted  
 W--> 275 aromatic D-amino acid, D-cyclohexadienyl-Gly, D-  
 W--> 277 perhydronaphthyl-Ala, D-perhydrodiphenyl-Ala or an  
 W--> 279 optionally substituted basic D-amino acid  
 283 <220> FEATURE:  
 285 <221> NAME/KEY: SITE  
 287 <222> LOCATION: (7)  
 289 <223> OTHER INFORMATION: Xaa is a linear, branched or cyclic aliphatic L-amino  
 291 acid of 3 to 20 carbon atoms which may be N-alpha-  
 293 substituted by a (C1-C4)alkyl group optionally substituted  
 295 by one or several fluorine atoms  
 299 <220> FEATURE:  
 301 <221> NAME/KEY: SITE  
 303 <222> LOCATION: (8)  
 305 <223> OTHER INFORMATION: Xaa is an optionally substituted basic L-amino acid  
 309 <220> FEATURE:  
 311 <221> NAME/KEY: SITE  
 313 <222> LOCATION: (10)  
 315 <223> OTHER INFORMATION: Xaa is GlyNH2, azaGlyNH2 or a group -NHR2 where R2 is  
 317 a (C1-C4)alkyl which may be substituted by an hydroxy  
 319 or one or several fluorine atoms, a (C3-C6)cycloalkyl  
 321 or a heterocyclic radical selected from morpholinyl,  
 W--> 323 pyrrolidinyl and piperidyl  
 327 <400> SEQUENCE: 2  
 W--> 329 Xaa His Xaa Xaa Xaa Xaa Xaa Xaa Pro Xaa  
 331 1 5 10  
 335 <210> SEQ ID NO: 3  
 337 <211> LENGTH: 10  
 339 <212> TYPE: PRT  
 341 <213> ORGANISM: Artificial Sequence  
 345 <220> FEATURE:  
 347 <223> OTHER INFORMATION: Description of Artificial Sequence:LH-RH analogue  
 351 <220> FEATURE:  
 353 <221> NAME/KEY: SITE

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Output Set: N:\CRF3\12192001\I787436.raw

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355 <222> LOCATION: (1)
357 <223> OTHER INFORMATION: Xaa is pGlu
361 <220> FEATURE:
363 <221> NAME/KEY: SITE
365 <222> LOCATION: (3)
367 <223> OTHER INFORMATION: Xaa is as defined for SEQ ID NO:2
371 <220> FEATURE:
373 <221> NAME/KEY: SITE
375 <222> LOCATION: (5)
377 <223> OTHER INFORMATION: Xaa is as defined for SED ID NO:2
381 <220> FEATURE:
383 <221> NAME/KEY: SITE
385 <222> LOCATION: (6)
387 <223> OTHER INFORMATION: Xaa is as defined for SED ID NO:2
391 <220> FEATURE:
393 <221> NAME/KEY: SITE
395 <222> LOCATION: (7)
397 <223> OTHER INFORMATION: Xaa is Leu, Tle, Nle, Hol, Npg, Cha or Ada, which may
399     be N-alpha-substituted by a methyl or ethyl group
401     optionally substituted by one or several fluorine atoms
405 <220> FEATURE:
407 <221> NAME/KEY: SITE
409 <222> LOCATION: (10)
411 <223> OTHER INFORMATION: Xaa is as defined for SEQ ID NO:2
415 <400> SEQUENCE: 3
W--> 417 Xaa His Xaa Ser Xaa Xaa Xaa Arg Pro Xaa
419     1             5             10
423 <210> SEQ ID NO: 4
425 <211> LENGTH: 10
427 <212> TYPE: PRT
429 <213> ORGANISM: Artificial Sequence
433 <220> FEATURE:
435 <223> OTHER INFORMATION: Description of Artificial Sequence:LH-RH analogue
439 <220> FEATURE:
441 <221> NAME/KEY: SITE
443 <222> LOCATION: (1)
445 <223> OTHER INFORMATION: Xaa is pGlu
449 <220> FEATURE:
451 <221> NAME/KEY: SITE
453 <222> LOCATION: (3)
455 <223> OTHER INFORMATION: Xaa is Phe, Tyr, Trp, 2MeTrp, HPhe, HTyr, Nal, lNal,
457     Bal, Pal, 4Pal or pClPhe
461 <220> FEATURE:
463 <221> NAME/KEY: SITE
465 <222> LOCATION: (5)
467 <223> OTHER INFORMATION: Xaa is Phe, Tyr, Trp, 2MeTrp, HPhe, HTyr, Nal, lNal,
469     Bal, Pal, 4Pal or pClPhe
473 <220> FEATURE:
475 <221> NAME/KEY: SITE

```

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Input Set : A:\ES.txt

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477 <222> LOCATION: (6)
479 <223> OTHER INFORMATION: Xaa is (S)-spiolactam-Pro, Gly, D-Pro, D-Ser(OBut),
481      D-Asp(OBut), D-Glu(OBut), D-Thr(OBut), D-Cys(OBut),
483      D-His, D-His(Bzl), D-Ala, D-Leu, D-Tle, D-Nle, D-Hol,
485      D-Npg, D-Cha, D-Phe, D-HPhe, D-Tyr, D-HTyr, D-Trp,
W--> 487      D-2MeTrp, D-Nal, D-lNal, D-Bal, D-Pal, D-4Pal, D-pClPhe
W--> 489      D-cyclohexadienyl-Gly, D-perhydronaphtyl-Ala,
W--> 491      D-perhydrodiphenyl-Ala or D-APhe optionally substituted
W--> 493      by an aminotriazolyl group
497 <220> FEATURE:
499 <221> NAME/KEY: SITE
501 <222> LOCATION: (7)
503 <223> OTHER INFORMATION: Xaa is Leu, Npg or Cha, which may be N-alpha-substituted
505      by a methyl group
509 <220> FEATURE:
511 <221> NAME/KEY: SITE
513 <222> LOCATION: (10)
515 <223> OTHER INFORMATION: Xaa is GlyNH2, azaGlyNH2 or -NC2H5
519 <400> SEQUENCE: 4
W--> 521 Xaa His Xaa Ser Xaa Xaa Xaa Arg Pro Xaa
523      1              5              10
527 <210> SEQ ID NO: 5
529 <211> LENGTH: 10
531 <212> TYPE: PRT
533 <213> ORGANISM: Artificial Sequence
537 <220> FEATURE:
539 <223> OTHER INFORMATION: Description of Artificial Sequence:LH-RH analogue
543 <220> FEATURE:
545 <221> NAME/KEY: SITE
547 <222> LOCATION: (1)
549 <223> OTHER INFORMATION: Xaa is pGlu
553 <220> FEATURE:
555 <221> NAME/KEY: SITE
557 <222> LOCATION: (6)
559 <223> OTHER INFORMATION: Xaa is (S)-spiolactam-Pro, D-Leu, D-Ala, D-Nal,
561      D-Phe, D-Ser(OBut) or D-Trp
565 <220> FEATURE:
567 <221> NAME/KEY: SITE
569 <222> LOCATION: (7)
571 <223> OTHER INFORMATION: Xaa is Leu, MeLeu, Npg or MeNpg
575 <220> FEATURE:
577 <221> NAME/KEY: SITE
579 <222> LOCATION: (10)
581 <223> OTHER INFORMATION: Xaa is GlyNH2, azaGlyNH2 or -NC2H5
585 <400> SEQUENCE: 5
W--> 587 Xaa His Trp Ser Tyr Xaa Xaa Arg Pro Xaa
589      1              5              10
593 <210> SEQ ID NO: 6
595 <211> LENGTH: 10

```

Use of n and / or Xaa has been detected in the Sequence Listing. Review the Sequence Listing to ensure a corresponding explanation is present in the <220> to <223> fields of each sequence using n or Xaa.

## VERIFICATION SUMMARY

PATENT APPLICATION: US/09/787,436

DATE: 12/19/2001

TIME: 16:01:47

Input Set : A:\ES.txt

Output Set: N:\CRF3\12192001\I787436.raw

L:7 M:280 W: Numeric Identifier already exists, <110> found multiple times  
L:9 M:280 W: Numeric Identifier already exists, <110> found multiple times  
L:23 M:270 C: Current Application Number differs, Replaced Current Application No  
L:23 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:129 M:259 W: Allowed number of lines exceeded, <223> Other Information:  
L:131 M:259 W: Allowed number of lines exceeded, <223> Other Information:  
L:133 M:259 W: Allowed number of lines exceeded, <223> Other Information:  
L:135 M:259 W: Allowed number of lines exceeded, <223> Other Information:  
L:137 M:259 W: Allowed number of lines exceeded, <223> Other Information:  
L:139 M:259 W: Allowed number of lines exceeded, <223> Other Information:  
L:141 M:259 W: Allowed number of lines exceeded, <223> Other Information:  
L:185 M:259 W: Allowed number of lines exceeded, <223> Other Information:  
L:191 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1  
L:267 M:259 W: Allowed number of lines exceeded, <223> Other Information:  
L:269 M:259 W: Allowed number of lines exceeded, <223> Other Information:  
L:271 M:259 W: Allowed number of lines exceeded, <223> Other Information:  
L:273 M:259 W: Allowed number of lines exceeded, <223> Other Information:  
L:275 M:259 W: Allowed number of lines exceeded, <223> Other Information:  
L:277 M:259 W: Allowed number of lines exceeded, <223> Other Information:  
L:279 M:259 W: Allowed number of lines exceeded, <223> Other Information:  
L:323 M:259 W: Allowed number of lines exceeded, <223> Other Information:  
L:329 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2  
L:417 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3  
L:487 M:259 W: Allowed number of lines exceeded, <223> Other Information:  
L:489 M:259 W: Allowed number of lines exceeded, <223> Other Information:  
L:491 M:259 W: Allowed number of lines exceeded, <223> Other Information:  
L:493 M:259 W: Allowed number of lines exceeded, <223> Other Information:  
L:521 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4  
L:587 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5  
L:681 M:259 W: Allowed number of lines exceeded, <223> Other Information:  
L:683 M:259 W: Allowed number of lines exceeded, <223> Other Information:  
L:685 M:259 W: Allowed number of lines exceeded, <223> Other Information:  
L:687 M:259 W: Allowed number of lines exceeded, <223> Other Information:  
L:689 M:259 W: Allowed number of lines exceeded, <223> Other Information:  
L:733 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6  
L:839 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7